

ABSTRACT OF THE DISCLOSURE

An approach is provided for supporting frame synchronization in a digital broadcast and interactive system. A transmitter includes an encoder that outputs a Low Density Parity Check (LDPC) codeword. The transmitter also includes a framing module generates a LDPC coded frame in response to the LDPC codeword, and appends a physical layer signaling field to the LDPC codeword for specifying modulation and coding information associated with the LDPC coded frame. The physical layer signaling field is encoded with a Forward Error Correction (FEC) code and has an embedded framing structure to assist with frame synchronization. The above arrangement is particularly suited to a digital satellite broadcast system.